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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,357	02/14/2002	Dwip N. Banerjee	AUS920010893US1	1515
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IBM CORPORATION (VE) C/O VOLEL EMILE P. O. BOX 162485 AUSTIN, TX 78716			EXAMINER NGUYEN, VAN KIM T	
			ART UNIT	PAPER NUMBER
			2152	
			MAIL DATE	DELIVERY MODE
			08/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/076,357	Applicant(s) BANERJEE ET AL.	
	Examiner Van Kim T. Nguyen	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on April 9, 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to communications filed on April 9, 2007.

Claims 1-20 are pending in the case.

Response to Amendment

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new grounds of rejection.

Claim Objections

3. Claims 11 and 16 are objected to because of the following informalities: Claims 11 and 16 are Jepson claims, but they do not commence on a separate sheet or electronic page in accordance with 37 CFR 1.52(b) (3). Appropriate correction is required in response to this action.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 6, 11, and 16 are rejected under 35 U.S.C. 102(e) as being unpatentable by Nakashima (US 2001/0023456).

Regarding claims 1, 6, 11, and 16, Nakashima discloses a method of transacting network data, comprising:

determining whether data being processed data is network data (as shown in Figures 2-3, Nakashima teaches when a request is received from a user via the internet 32, the multi-

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processor information processing provides processing for allowing the user to connect to an appropriate server (para 0039). The processors modules 10a to 10d are each comprised of a CPU, a memory, control devices, etc., and carry out various operations according to programs read from the storage device 10g (para 0047). Thus inherently it must determine whether data being processed is network data so the user can be connected to an appropriate server, or non-network data so operations can be carried out according to programs read from the storage device 10g); and

transacting, if the data is network data, the data using a virtual IP address, the virtual address being an IP address given to a data holding device in the multiprocessor system (e.g., assignment of virtual IP addresses can be defined for the PM#1 to PM#4 on a processor module by processor module basis, thus it is possible to determine the assignment of a virtual IP address to a processor module based on the type of a communication process; para 0058 - 0061).

The Examiner agrees with Applicant's argument that "*Nakashima teaches the virtual IP addresses and indeed IP addresses in general are assigned to the processor modules and the system*" (see page 10). However, since the disclosure does not further define what a data holding device may entail, the Examiner considers the processor modules are indeed data holding devices.

Claim Rejections - 35 USC § 103

6. Claims 2-3, 7-8, 12-13, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable by Nakashima (US 2001/0023456), in view of Acharya et al (US 6,934,799), hereinafter Acharya.

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Regarding claims 2, 7, 12, and 17, Nakashima discloses substantially all the claimed limitations, except the data holding device is a buffer.

Acharya teaches storage virtualization wherein receiving a packet that is part of a TCP connection to a particular block range each of the target physical LUN can be mapped to a virtual IP address (col. 3: line 49 – col. 4: line 36).

Applicant discloses “the word buffer is used to indicate a location in memory or in any other (storage) devices that may be used to store data.” (see Specification, page 11). Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Acharya’s method of virtualization of iSCSI Storage in Nakashima’s system, motivated by the need of curbing the rising costs of storage management by enabling wider sharing of storage devices and the consolidation of storage resources under centralized administrative control.

Regarding claims 3, 8, 13, and 18, Nakashima-Acharya also discloses the buffer (1e, 10g, 10h) is implemented using memory allocation (Nakashima: para 0033, and 0049-0050).

Regarding claims 4, 9, 14, and 19, Nakashima-Acharya also discloses the buffer contends for access to one of the limited physical interfaces (e.g., storage virtualization is employed to contend for access to one of the limited physical interfaces; Acharya: abstract).

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Regarding claims 5, 10, 15, and 20, Nakashima-Acharya also discloses before transmitting the data to the physical interface, the virtual IP address replaced by a destination IP address (col. 3: lines 58-67)

Conclusion

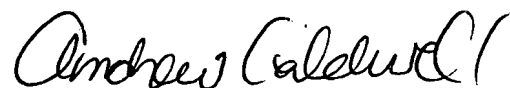
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Van Kim T. Nguyen whose telephone number is 571-272-3073. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit, can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Van Kim T. Nguyen
Examiner
Art Unit 2152

vkn



ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER